



Roya Kambin
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
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July 26, 2012

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Texaco Service Station 317233
2259 First Street
Livermore, California
ACEHS Case No. RO2908

RECEIVED

11:14 am, Jul 30, 2012

Alameda County
Environmental Health

I accept the Second Quarter 2012 Groundwater Monitoring and Sampling Report.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This Second Quarter 2012 Groundwater Monitoring and Sampling Report was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read "Roya Kambin", written in a cursive style.

Roya Kambin
Project Manager

Attachment: Second Quarter 2012 Groundwater Monitoring and Sampling Report



**CONESTOGA-ROVERS
& ASSOCIATES**

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
<http://www.craworld.com>

July 26, 2012

Reference No. 312264

Mr. Jerry Wickham
Alameda County Environmental Health Services (ACEHS)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Second Quarter 2012
Groundwater Monitoring and Sampling Report
Former Texaco Service Station 307233
2259 First Street
Livermore, California
ACEHS Case RO0002908

Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Second Quarter 2012 Groundwater Monitoring and Sampling Report* for the site referenced above (Figures 1 and 2) on behalf of Chevron Environmental Management Company (Chevron). Groundwater monitoring and sampling was performed by Gettler-Ryan, Inc. (G-R) of Dublin, California, and their June 15, 2012 *Groundwater Monitoring and Sampling Data Package* is included as Attachment A.

All shallow wells, MW-7 through MW-12, were monitored, and wells MW-8, MW-10, and MW-12 were sampled per the established schedule. The sample collected from well MW-8 was a grab-groundwater sample due to insufficient water to purge the well prior to sampling. Wells MW-7 and MW-11 were not sampled due to insufficient water for sampling. Deep wells and shallow well MW-9 are sampled during the first and third quarters only.

Lancaster Laboratories' June 15, 2012 *Analytical Results* is included as Attachment B. Current and historical groundwater monitoring and sampling data are presented in Table 1.

Equal
Employment Opportunity
Employer



**CONESTOGA-ROVERS
& ASSOCIATES**

July 26, 2012

Reference No. 312264

- 2 -

Please contact Kiersten Hoey at (510) 420-3347 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Kiersten Hoey

Brandon S. Wilken PG 7564



KH/cw/19
Encl.

Figure 1	Vicinity Map
Figure 2	Shallow Zone Groundwater Elevation Contour and Hydrocarbon Concentration Map
Table 1	Groundwater Monitoring and Sampling Data
Attachment A	Monitoring Data Package
Attachment B	Laboratory Analytical Report

cc: Ms. Roya Kambin, Chevron (*electronic copy*)
Mr. Eric Uranaga, City of Livermore Economic Development

FIGURES

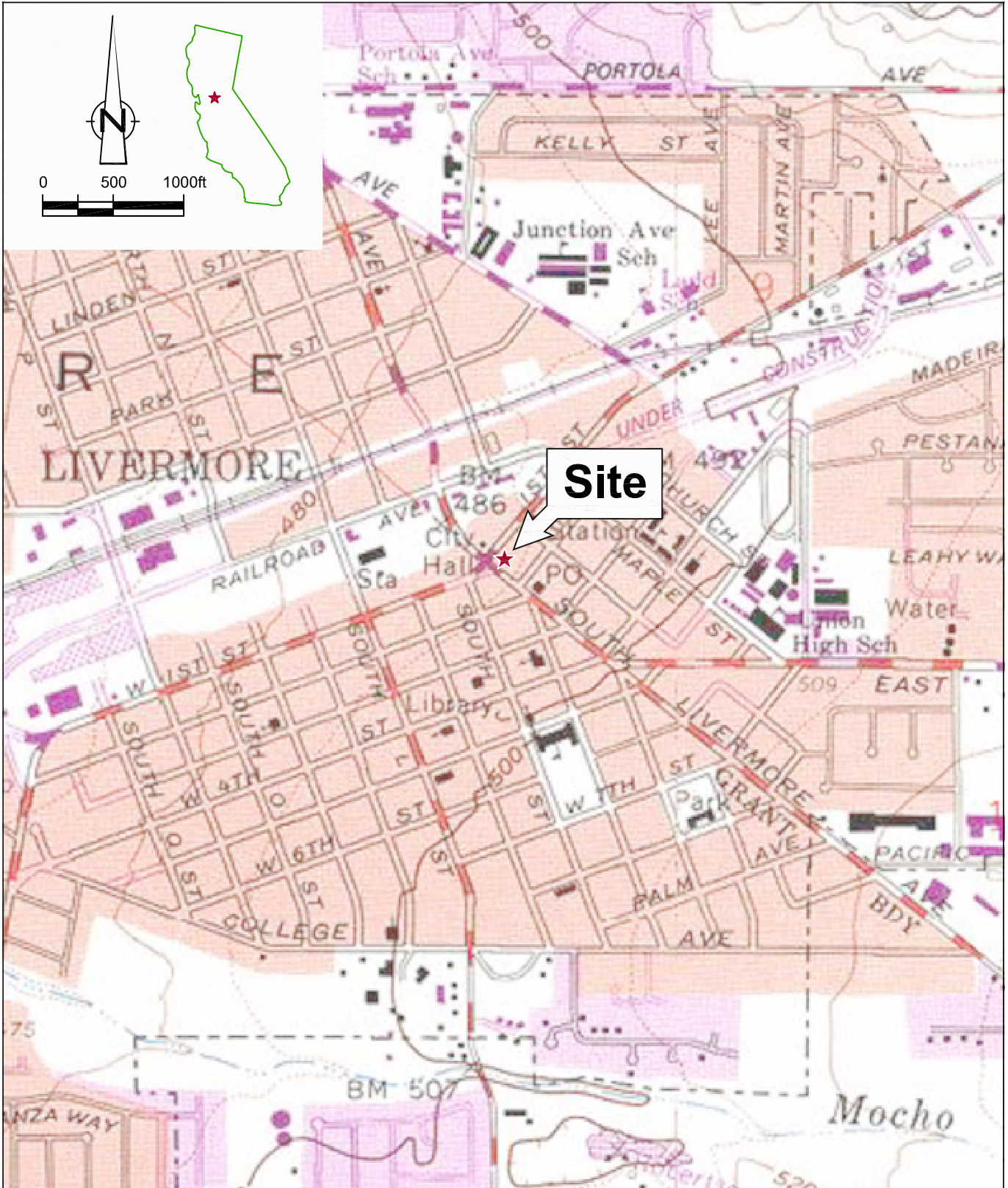


Figure 1
 VICINITY MAP
 FORMER TEXACO STATION (CHEVRON SITE 307233)
 2259 FIRST STREET
 Livermore, California



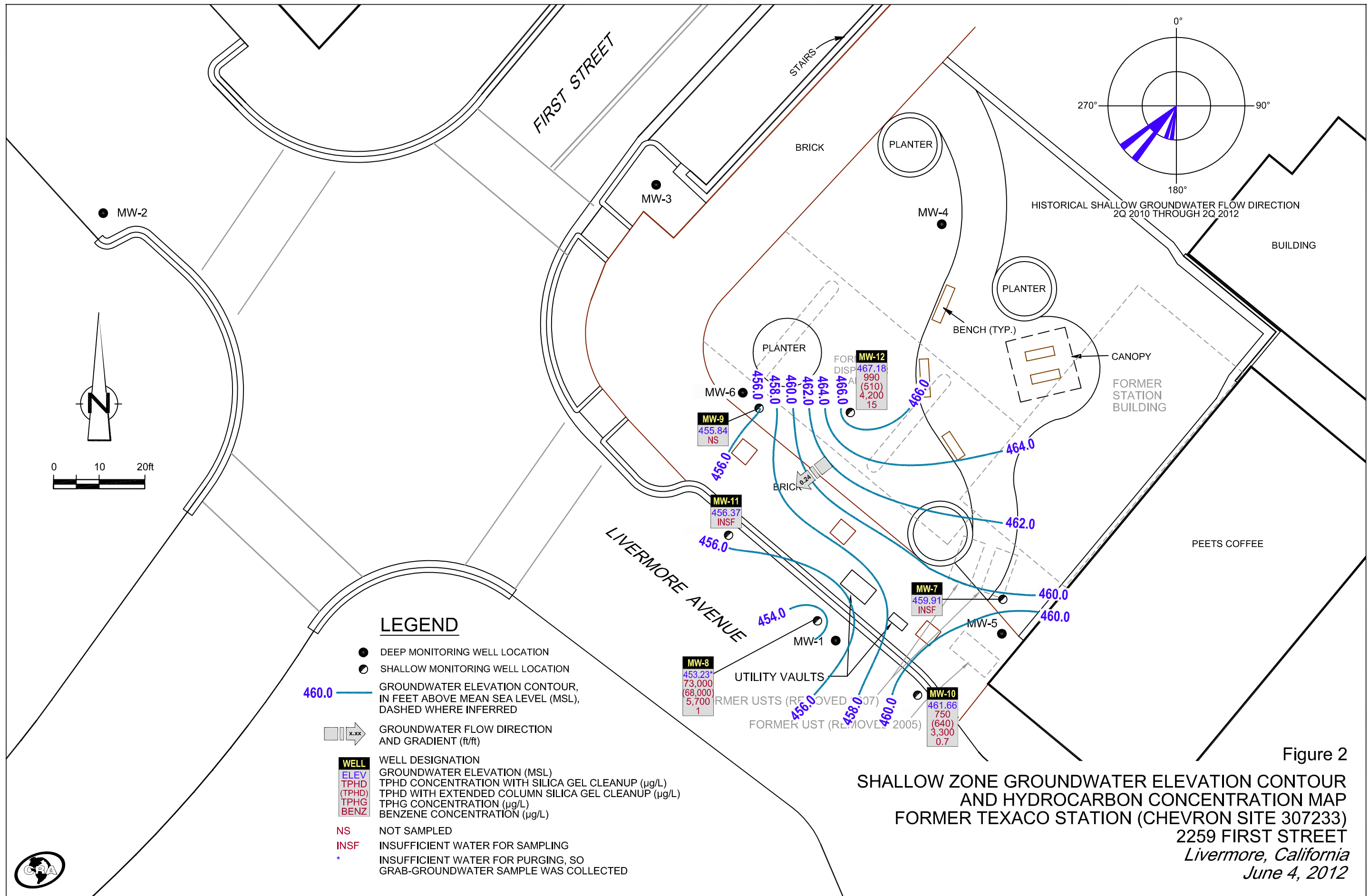


Figure 2
**SHALLOW ZONE GROUNDWATER ELEVATION CONTOUR
 AND HYDROCARBON CONCENTRATION MAP**
 FORMER TEXACO STATION (CHEVRON SITE 307233)
 2259 FIRST STREET
 Livermore, California
 June 4, 2012

TABLE

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 307233
 2259 FIRST STREET
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY								
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium	
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	05/25/2010 ¹	490.86	30.62	460.24	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	05/27/2010	490.86	30.65	460.21	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	09/13/2010	490.86	36.49	454.37	0.00	0.00	51	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	12/20/2010	490.86	32.24	458.62	0.00	0.00	-	79	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	03/07/2011	490.86	27.86	463.00	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	6,900	73,600	-	<10	-	-	-	-	-
MW-1	06/06/2011	490.86	27.10	463.76	0.00	0.00	-	220	<50	<0.5	<0.5	<0.5	<0.5	7,000	71,000	-	<10	-	-	-	-	-
MW-1	09/19/2011	490.86	31.26	459.60	0.00	0.00	-	450/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	03/09/2012 ⁷	490.86	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	03/12/2012 ⁴	490.86	41.35	449.51	0.00	0.00	-	<50/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-1	06/04/2012⁷	490.86	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	05/25/2010 ¹	489.43	31.18	458.25	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	05/27/2010	489.43	31.11	458.32	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	09/13/2010	489.43	36.96	452.47	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	12/20/2010	489.43	32.62	456.81	0.00	0.00	-	52	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	03/07/2011	489.43	28.26	461.17	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	3,600	45,900	-	20	-	-	-	-	-
MW-2	06/06/2011	489.43	27.73	461.70	0.00	0.00	-	220	<50	<0.5	<0.5	<0.5	<0.5	2,900	43,600	-	<10	-	-	-	-	-
MW-2	09/19/2011	489.43	31.92	457.51	0.00	0.00	-	230/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	03/09/2012 ⁷	489.43	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/12/2012 ⁴	489.43	41.84	447.59	0.00	0.00	-	<50/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-2	06/04/2012⁷	489.43	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	05/25/2010 ¹	490.38	30.17	460.21	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	05/27/2010	490.38	30.98	459.40	0.00	0.00	610	-	2,100	2	<0.5	<0.5	0.9	-	-	-	-	-	-	-	-	-
MW-3	09/13/2010	490.38	36.77	453.61	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-3	12/20/2010	490.38	32.41	457.97	0.00	0.00	-	97	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW-3	03/07/2011	490.38	28.06	462.32	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	4,300	70,400	-	53	-	-	-	-	-
MW-3	06/06/2011	490.38	27.28	463.10	0.00	0.00	-	110	<50	<0.5	<0.5	<0.5	<0.5	3,900	66,400	-	17	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 307233
 2259 FIRST STREET
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY										
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium			
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
MW-3	09/19/2011	490.38	31.21	459.17	0.00	0.00	-	170/230	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/09/2012 ⁷	490.38	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	03/12/2012 ⁴	490.38	41.66	448.72	0.00	0.00	-	<50/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-3	06/04/2012⁷	490.38	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	05/25/2010 ¹	492.27	32.21	460.06	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	05/27/2010	492.27	32.26	460.01	0.00	0.00	230	-	1,800	1	<0.5	<0.5	0.7	-	-	-	-	-	-	-	-	-	-	-
MW-4	09/13/2010	492.27	38.14	454.13	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-4	12/20/2010	492.27	33.80	458.47	0.00	0.00	-	180	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-4	03/07/2011	492.27	29.42	462.85	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	7,900	72,300	-	15	-	-	-	-	-	-	-
MW-4	06/06/2011	492.27	28.52	463.75	0.00	0.00	-	87	<50	<0.5	<0.5	<0.5	<0.5	7,500	67,700	-	<10	-	-	-	-	-	-	-
MW-4	09/19/2011	492.27	32.78	459.49	0.00	0.00	-	330/140	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-4	03/09/2012 ⁷	492.27	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	03/12/2012 ⁴	492.27	42.99	449.28	0.00	0.00	-	130/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-4	06/04/2012⁷	492.27	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	05/25/2010 ¹	491.99	31.39	460.60	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	05/27/2010	491.99	31.42	460.57	0.00	0.00	120	-	420	2	<0.5	<0.5	1	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/13/2010	491.99	37.25	454.74	0.00	0.00	700	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-5	12/20/2010	491.99	33.01	458.98	0.00	0.00	-	74	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/07/2011	491.99	28.60	463.39	0.00	0.00	-	93	<50	<0.5	<0.5	<0.5	<0.5	7,900	70,100	-	23	-	-	-	-	-	-	-
MW-5	06/06/2011	491.99	27.71	464.28	0.00	0.00	-	<50	18,000	1,500	45	450	1,700	<250	2,700	-	11	-	-	-	-	-	-	-
MW-5	06/22/2011 ²	491.99	28.90	463.09	0.00	0.00	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/19/2011	491.99	31.94	460.05	0.00	0.00	-	240/410	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/09/2012 ⁷	491.99	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/12/2012 ⁴	491.99	42.15	449.84	0.00	0.00	-	95/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW-5	06/04/2012⁷	491.99	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 307233
 2259 FIRST STREET
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY									
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium		
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-6	05/25/2010 ¹	491.52	31.63	459.89	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	05/27/2010	491.52	31.79	459.73	0.00	0.00	1,000	-	3,700	4	<0.5	<0.5	1	-	-	-	-	-	-	-	-	-	-
MW-6	09/13/2010	491.52	37.64	453.88	0.00	0.00	68	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-6	12/20/2010	491.52	33.32	458.20	0.00	0.00	-	140	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-6	03/07/2011	491.52	28.96	462.56	0.00	0.00	-	63	<50	<0.5	<0.5	<0.5	<0.5	360	55,400	-	33	-	-	-	-	-	-
MW-6	06/06/2011	491.52	28.08	463.44	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	5,300	54,000	-	<10	-	-	-	-	-	-
MW-6	09/19/2011	491.52	32.38	459.14	0.00	0.00	-	<50/380	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-6	03/09/2012 ⁷	491.52	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	03/12/2012 ⁴	491.52	42.50	449.02	0.00	0.00	-	54/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-6	06/04/2012⁷	491.52	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	05/25/2010 ¹	492.29	28.69	463.60	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	05/27/2010	492.29	28.61	463.68	0.00	0.00	2,800	-	14,000	1,800	35	320	660	-	-	-	-	-	-	-	-	-	-
MW-7	09/13/2010	492.29	31.75	460.54	0.00	0.00	40,000	-	16,000	1,700	33	460	600	-	-	-	-	-	-	-	-	-	-
MW-7	12/20/2010	492.29	27.96	464.33	0.00	0.00	-	6,200	15,000	2,800	59	450	530	-	-	-	-	-	-	-	-	-	-
MW-7	03/07/2011	492.29	24.98	467.31	0.00	0.00	-	55,000	16,000	1,500	50	470	2,100	<250	2,600	-	2,800	-	-	-	-	-	-
MW-7	06/06/2011	492.29	24.12	468.17	0.00	0.00	-	24,000	<50	<0.5	<0.5	<0.5	<0.5	8,000	70,300	-	4,300	-	-	-	-	-	-
MW-7	06/22/2011 ²	492.29	26.71	465.58	0.00	0.00	-	-	19,000	1,800	47	490	2,200	-	-	-	-	-	-	-	-	-	-
MW-7	09/19/2011 ³	492.29	28.85	463.44	0.12	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/09/2012	492.29	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/12/2012 ⁵	492.29	32.38	459.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	06/04/2012^{5,6}	492.29	32.38	459.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	05/25/2010 ¹	490.89	30.62	460.27	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	05/27/2010	490.89	30.78	460.11	0.00	0.00	750	-	3,100	36	3	<0.5	2	-	-	-	-	-	-	-	-	-	-
MW-8	09/13/2010	490.89	36.55	454.34	0.00	0.00	590	-	3,400	5	2	<0.5	1	-	-	-	-	-	-	-	-	-	-
MW-8	12/20/2010	490.89	31.60	459.29	0.00	0.00	-	750	4,000	0.8	0.7	19	3	-	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 307233
 2259 FIRST STREET
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY									
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium		
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-8	03/07/2011	490.89	28.20	462.69	0.00	0.00	-	1,300	2,800	0.9	0.7	12	2	<250	7,000	-	820	-	-	-	-	-	-
MW-8	06/06/2011	490.89	27.38	463.51	0.00	0.00	-	4,300	3,100	0.9	0.7	5	1	<250	2,400	-	2,000	-	-	-	-	-	-
MW-8	09/19/2011	490.89	31.81	459.08	0.00	0.00	-	6,800/720	4,600	1	0.8	0.5	0.8	-	-	-	-	-	-	-	-	-	-
MW-8	03/09/2012	490.89	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	03/12/2012 ⁵	490.89	38.48	452.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	06/04/2012^{4,8}	490.89	37.66	453.23	0.00	0.00	-	73,000/68,000	5,700	1	0.8	2	3	-	<1,500	<54	27,100	259,000	<700	2,000	31,200	-	-
MW-9	05/25/2010 ¹	491.64	29.23	462.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	05/27/2010	491.64	28.96	462.68	0.00	0.00	<50	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-9	09/13/2010	491.64	31.85	459.79	0.00	0.00	30,000	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-9	12/20/2010	491.64	28.95	462.69	0.00	0.00	-	56	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-9	03/07/2011	491.64	25.67	465.97	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	<250	172,000	-	48	-	-	-	-	-	-
MW-9	06/06/2011	491.64	24.67	466.97	0.00	0.00	-	<50	<50	<0.5	<0.5	<0.5	<0.5	<250	228,000	-	<10	-	-	-	-	-	-
MW-9	09/19/2011	491.64	29.46	462.18	0.00	0.00	-	250/<50*	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-9	03/09/2012 ⁷	491.64	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	03/12/2012 ⁴	491.64	34.27	457.37	0.00	0.00	-	<50/<50*	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-9	06/04/2012⁷	491.64	35.80	455.84	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	03/09/2012 ¹	491.15	28.00	463.15	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	03/12/2012 ⁴	491.15	28.11	463.04	0.00	0.00	-	440/260	3,100	<1	<1	36	16	-	-	-	-	-	-	-	-	-	-
MW-10	06/04/2012⁴	491.15	29.49	461.66	0.00	0.00	-	750/640	3,300	0.7	1	36	12	-	-	-	-	-	-	-	-	-	-
MW-11	03/09/2012 ¹	490.59	31.48	459.11	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	03/12/2012 ⁴	490.59	33.35	457.24	0.00	0.00	-	160/<50	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-11	06/04/2012⁵	490.59	34.22	456.37	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	03/09/2012 ¹	493.72	25.43	468.29	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 307233
 2259 FIRST STREET
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				GENERAL CHEMISTRY										
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium			
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
MW-12	03/12/2012 ⁴	493.72	26.97	466.75	0.00	0.00	-	1,100/310	3,000	10	1	19	38	-	-	-	-	-	-	-	-	-	-	-
MW-12	06/04/2012 ⁴	493.72	26.54	467.18	0.00	0.00	-	990/510	4,200	15	2	12	23	-	-	-	-	-	-	-	-	-	-	-
QA	05/27/2010	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	09/13/2010	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	12/20/2010	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	03/07/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	06/06/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	06/22/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	09/19/2011	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	03/12/2012	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA	06/04/2012	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 307233
 2259 FIRST STREET
 LIVERMORE, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS			PRIMARY VOCS				Nitrate Nitrogen	Sulfate	Total sulfide (dissolved)	Ferrous Iron	Alkalinity, total (as CaCO3)	Alkalinity, phenolphthalein	Methane	Calcium	
							TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X									
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	ug/L	ug/L	ug/L	ug/L	

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

TOC elevations were surveyed on April 19, 2010 by Morrow Surveying. Vertical datum is NAVD 88 from GPS observations

ft = Feet

µg/L = Micrograms per liter

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

-- = Not available / not applicable

<x = Not detected at or above laboratory method detection limit

- 1 Well development performed.
- 2 Second quarter 2011 resampling event because MW-5 and MW-7 bottles for TPHg and BTEX analysis were switched during the original 6/6/2011 sampling event.
- 3 Monitored only due to the presence of NAPL.
- 4 Silica Gel Cleanup / 10 gram Column Silica Gel Cleanup with Capric Acid Reverse Surrogate.
- 5 Insufficient water to sample.
- 6 Sulfate canister in well
- 7 Monitoring and sampled during the first and third quarters only
- 8 Insufficient water for purging, so a grab-groundwater samples was collected

ATTACHMENT A

MONITORING DATA PACKAGE



GETTLER-RYAN INC.



TRANSMITTAL

June 15, 2012
G-R #385876

TO: Ms. Kiersten Hoey
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: **Former Chevron Service Station
#307233
2259 First Street
Livermore, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Second Quarter Event of June 4, 2012

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #307233
 Site Address: 2259 First Street
 City: Livermore, CA

Job #: 385876
 Event Date: 6-4-11
 Sampler: FT

WELL ID	Vault Frame Condition	Gasket/O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-7	OK									Momison 6" 12	
MW-8	OK									Emco 12" 12	
MW-9	OK									Momison 6" 12 NO WELL BOX I.D.	
MW-10	OK									8" WELL BOX	
MW-11	OK										
MW-12	OK										

Comments _____

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Evergreen Oil located in Newark, California.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233
 Site Address: 2259 First Street
 City: Livermore, CA

Job Number: 385876
 Event Date: 6-4-12 (inclusive)
 Sampler: FR

Well ID: MW-7
 Well Diameter: 2
 Total Depth: 32.83 ft.
 Depth to Water: 32.38 ft.
.45 xVF = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 6-4-12

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 500ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: INSUFFICIENT WATER SKIMMEN IN WELL

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233
 Site Address: 2259 First Street
 City: Livermore, CA

Job Number: 385876
 Event Date: 6-4-12 (inclusive)
 Sampler: FR

Well ID: MW-8
 Well Diameter: 2
 Total Depth: 38.89 ft.
 Depth to Water: 37.66 ft.
1.23 x VF .17 = .20

Date Monitored: 6-4-12

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

x3 case volume = Estimated Purge Volume: .62 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____
 Sample Time/Date: 1230/6-4-12
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: RAIN
 Water Color: gray Odor: DIRTY STRONG
 Sediment Description: SILTY
 Volume: _____ gal. DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (° F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	2 x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	1 x 500ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	1 x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	1 x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	1 x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	3 x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: INSUFFICIENT WATER FOR PUMPING TOOK A GRAB SAMPLE.

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
 Site Address: 2259 First Street Event Date: 6-4-02 (inclusive)
 City: Livermore, CA Sampler: FR

Well ID: MW-9
 Well Diameter: 2
 Total Depth: 39.85 ft.
 Depth to Water: 35.80 ft.
4.05 xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 6-4-02

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 500ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: M10

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
 Site Address: 2259 First Street Event Date: 6.4.11 (inclusive)
 City: Livermore, CA Sampler: FT

Well ID: MW-10 Date Monitored: 6.4.11
 Well Diameter: 2
 Total Depth: 32.38 ft.
 Depth to Water: 29.49 ft. Check if water column is less than 0.50 ft.
2.89 x VF .17 = .49 x3 case volume = Estimated Purge Volume: 1.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 30.06

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1145 Weather Conditions: RAIN
 Sample Time/Date: 1210 6.4.11 Water Color: gray Odor: 0/1 N SLIGHT
 Approx. Flow Rate: ✓ gpm. Sediment Description: S. SILTY
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 29.90

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - DS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1147</u>	<u>.25</u>	<u>7.22</u>	<u>580</u>	<u>18.1</u>	_____	_____
<u>1149</u>	<u>.50</u>	<u>7.17</u>	<u>584</u>	<u>17.9</u>	_____	_____
<u>1152</u>	<u>1.0</u>	<u>7.14</u>	<u>587</u>	<u>17.7</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 500ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233
 Site Address: 2259 First Street
 City: Livermore, CA

Job Number: 385876
 Event Date: 6-4-12 (inclusive)
 Sampler: FR

Well ID: MW-11
 Well Diameter: 2
 Total Depth: 34.70 ft.
 Depth to Water: 34.22 ft.
.48 xVF = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 6-4-12

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 500ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: INSUFFICIENT WATER

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
 Site Address: 2259 First Street Event Date: 6.4.11 (inclusive)
 City: Livermore, CA Sampler: FT

Well ID: MW-12 Date Monitored: 6.4.11
 Well Diameter: 2
 Total Depth: 34.49 ft.
 Depth to Water: 26.54 ft. Check if water column is less than 0.50 ft.
7.95 xVF .17 = 1.35 x3 case volume = Estimated Purge Volume: 4.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.13

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1245 Weather Conditions: RAIN
 Sample Time/Date: 1315 16.4.11 Water Color: LT. GRN. Odor: DIRTY STENCH
 Approx. Flow Rate: _____ gpm. Sediment Description: S. SLURRY
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 28.10

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>DS</u>)	Temperature (°/ F)	D.O. (mg/L)	ORP (mV)
<u>1249</u>	<u>1.5</u>	<u>7.63</u>	<u>696</u>	<u>16.3</u>	_____	_____
<u>1253</u>	<u>3.0</u>	<u>7.59</u>	<u>700</u>	<u>16.5</u>	_____	_____
<u>1257</u>	<u>4.0</u>	<u>7.55</u>	<u>705</u>	<u>16.8</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-12</u>	<u>6</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x voa vial	YES	NP	LANCASTER	SULFATE (EPA 300.0)
	x 500ml clear glass	YES	NaOH	LANCASTER	DISSOLVED SULFIDE (SM20 4500 S2D)
	x 250ml poly	YES	NP	LANCASTER	TOTAL ALKALINITY (SM20 2320 B)
	x 250ml poly	YES	HNO3	LANCASTER	CALCIUM (6010)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)
	x voa vial	YES	HCL	LANCASTER	DISSOLVED METHANE (RSK-175)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only

Acct. #: _____ Sample # _____ Group #: **020845**

Please forward the lab results directly to the Lead Consultant and cc: G-R.

Facility #: <u>SS#307233-QML G-R#385876 Global ID#T0600196622</u> Site Address: <u>2259 FIRST STREET, LIVERMORE, CA</u> Chevron PM: <u>EF</u> Lead Consultant: <u>CRAHK Hoey</u> Consultant/Office: <u>G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Phone # <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>FRANK TERMINONI</u>				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES		Analyses Requested										Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other						
Sample Identification				Date Collected		Time Collected		Grab	Composite	Soil	Water	Oil <input type="checkbox"/> Air <input type="checkbox"/>	Total Number of Containers	BTEX <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GRO	TPH 8015 MOD DRO <input checked="" type="checkbox"/> Silica Gel Cleanup	DISSOLVED METHANE FERROUS SULFIDE (SM20)	Total Lead Method	Dissolved Lead Method	TPH-DRO w/5% SULFATE (EPA 300.0) SM20 (ASD 320) DISSOLVED SULFIDE TOTAL (AS CALCOB) (SM20) ALKALINITY (320B) CALCIUM (6010)	<input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits	
QA 6.4.12				6.4.12		1230		X	X	W	X	2	X	X	X	X	X	X	X	X	Comments / Remarks Please report DRO w/sgc using 10 grams of silica and also report 1 gram shake results	
MW-8				↓		1230		X	X	↓	X	7	X	X	X	X	X	X	X	X	X	
MW-10				↓		1210		X	X	↓	X	8	X	X	X	X	X	X	X	X	X	
MW-12				↓		1315		X	X	↓	X	8	X	X	X	X	X	X	X	X	X	

Turnaround Time Requested (TAT) (please circle)

STD. TAT 72 hour 48 hour
 24 hour 4 day 5 day

Data Package Options (please circle if required)

QC Summary Type I - Full
 Type VI (Raw Data) Coelt Deliverable not needed
 WIP (RWQCB)
 Disk

EDF/EDD

Relinquished by: <i>[Signature]</i>		Date: <u>6.4.12/525</u>	Time: _____	Received by: <i>[Signature]</i>		Date: <u>6/4/12</u>	Time: <u>1505</u>
Relinquished by: _____		Date: _____	Time: _____	Received by: _____		Date: _____	Time: _____
Relinquished by: _____		Date: _____	Time: _____	Received by: _____		Date: _____	Time: _____
Relinquished by Commercial Carrier: _____				Received by: _____		Date: _____	Time: _____
UPS		FedEx		Other: _____			
Temperature Upon Receipt: _____ °C				Custody Seals Intact? Yes No			

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

June 15, 2012

Project: 307233

Submittal Date: 06/05/2012
Group Number: 1313421
PO Number: 0015075227
Release Number: FROHNAPPLE
State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
QA-T-120604 NA Water	6676382
MW-8-W-120604 Grab Water	6676383
MW-8-W-120604 Grab Water	6676384
MW-10-W-120604 Grab Water	6676385
MW-10-W-120604 Grab Water	6676386
MW-12-W-120604 Grab Water	6676387
MW-12-W-120604 Grab Water	6676388

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	CRA c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Kiersten Hoey

Respectfully Submitted,



Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: QA-T-120604 NA Water
 Facility# 307233 Job# 385876 GRD
 2259 First St-Livermore T0600196622 QA

LLI Sample # WW 6676382
 LLI Group # 1313421
 Account # 10904

Project Name: 307233

Collected: 06/04/2012

Chevron

Submitted: 06/05/2012 10:00

L4310

Reported: 06/15/2012 11:52

6001 Bollinger Canyon Rd.
 San Ramon CA 94583

7233Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles SW-846 8015B					
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P121611AA	06/09/2012 13:49	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P121611AA	06/09/2012 13:49	Emily R Styer	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12159A20A	06/08/2012 14:59	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12159A20A	06/08/2012 14:59	Marie D John	1

Sample Description: MW-8-W-120604 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-8

LLI Sample # WW 6676383
LLI Group # 1313421
Account # 10904

Project Name: 307233

Collected: 06/04/2012 12:30 by FT Chevron
 Submitted: 06/05/2012 10:00 L4310
 Reported: 06/15/2012 11:52 6001 Bollinger Canyon Rd.
 San Ramon CA 94583

72338

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B ug/l ug/l					
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	2	0.5	1
10943	Toluene	108-88-3	0.8	0.5	1
10943	Xylene (Total)	1330-20-7	3	0.5	1
GC Volatiles SW-846 8015B ug/l ug/l					
01728	TPH-GRO N. CA water C6-C12	n.a.	5,700	500	10
GC Miscellaneous RSKSOP-175 08/11/94 modified ug/l ug/l					
07105	Methane	74-82-8	2,000	50	10
GC Petroleum SW-846 8015B ug/l ug/l					
Hydrocarbons w/Si					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	68,000	160	1
The reverse surrogate, capric acid, is present at <1%.					
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.					
Metals SW-846 6010B ug/l ug/l					
01750	Calcium	7440-70-2	31,200	70.5	1
Wet Chemistry EPA 300.0 ug/l ug/l					
00228	Sulfate	14808-79-8	N.D.	1,500	5
SM20 2320 B ug/l as CaCO3 ug/l as CaCO3					
12150	Total Alkalinity	n.a.	259,000	700	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	700	1
SM20 3500 Fe B modified ug/l ug/l					
08344	Ferrous Iron	n.a.	27,100	1,000	100
SM20 4500 S2 D ug/l ug/l					
10499	Dissolved Sulfide	n.a.	N.D.	54	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: MW-8-W-120604 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-8

LLI Sample # WW 6676383
LLI Group # 1313421
Account # 10904

Project Name: 307233

Collected: 06/04/2012 12:30 by FT Chevron
 L4310
 Submitted: 06/05/2012 10:00 6001 Bollinger Canyon Rd.
 Reported: 06/15/2012 11:52 San Ramon CA 94583

72338

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P121611AA	06/09/2012 16:35	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P121611AA	06/09/2012 16:35	Emily R Styer	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12159A20A	06/09/2012 10:45	Marie D John	10
01146	GC VOA Water Prep	SW-846 5030B	1	12159A20A	06/09/2012 10:45	Marie D John	10
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	121640035A	06/14/2012 20:13	Elizabeth J Marin	10
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	121600001A	06/13/2012 21:38	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	121600001A	06/08/2012 14:00	Kelli M Barto	1
01750	Calcium	SW-846 6010B	1	121581848002	06/12/2012 10:31	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	121581848002	06/06/2012 22:30	Annamaria Stipkovits	1
00228	Sulfate	EPA 300.0	1	12161655601B	06/09/2012 21:07	Christopher D Meeks	5
12150	Total Alkalinity	SM20 2320 B	1	12164002202B	06/12/2012 13:59	Susan A Engle	1
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12164002202B	06/12/2012 13:59	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12157834401A	06/05/2012 20:10	Daniel S Smith	100
10499	Dissolved Sulfide	SM20 4500 S2 D	1	12163023002A	06/11/2012 14:30	Michele L Graham	1

Sample Description: MW-8-W-120604 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-8

LLI Sample # WW 6676384
LLI Group # 1313421
Account # 10904

Project Name: 307233

Collected: 06/04/2012 12:30 by FT Chevron
 Submitted: 06/05/2012 10:00 L4310
 Reported: 06/15/2012 11:52 6001 Bollinger Canyon Rd.
 San Ramon CA 94583

2338Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons w/Si	SW-846 8015B	ug/l	ug/l	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	73,000	160	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	121600005A	06/11/2012 22:41	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	121600005A	06/08/2012 14:00	Kelli M Barto	1

Sample Description: MW-10-W-120604 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-10

LLI Sample # WW 6676385
LLI Group # 1313421
Account # 10904

Project Name: 307233

Collected: 06/04/2012 12:10 by FT Chevron
 Submitted: 06/05/2012 10:00 L4310
 Reported: 06/15/2012 11:52 6001 Bollinger Canyon Rd.
 San Ramon CA 94583

23310

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	0.7	0.5	1
10943	Ethylbenzene	100-41-4	36	0.5	1
10943	Toluene	108-88-3	1	0.5	1
10943	Xylene (Total)	1330-20-7	12	0.5	1
GC Volatiles SW-846 8015B					
01728	TPH-GRO N. CA water C6-C12	n.a.	3,300	250	5
GC Petroleum SW-846 8015B					
Hydrocarbons w/Si					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	640	160	1
The reverse surrogate, capric acid, is present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P121611AA	06/09/2012 17:03	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P121611AA	06/09/2012 17:03	Emily R Styer	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12159A20A	06/09/2012 09:34	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12159A20A	06/09/2012 09:34	Marie D John	5
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	121600001A	06/13/2012 17:53	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	121600001A	06/08/2012 14:00	Kelli M Barto	1

Sample Description: MW-10-W-120604 Grab Water
 Facility# 307233 Job# 385876 GRD
 2259 First St-Livermore T0600196622 MW-10

LLI Sample # WW 6676386
 LLI Group # 1313421
 Account # 10904

Project Name: 307233

Collected: 06/04/2012 12:10 by FT Chevron
 Submitted: 06/05/2012 10:00 L4310
 Reported: 06/15/2012 11:52 6001 Bollinger Canyon Rd.
 San Ramon CA 94583

3310Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons w/Si	SW-846 8015B	ug/l	ug/l	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	750	160	1

General Sample Comments

State of California Lab Certification No. 2501
 All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	121600005A	06/11/2012 23:04	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	121600005A	06/08/2012 14:00	Kelli M Barto	1

Sample Description: MW-12-W-120604 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-12

LLI Sample # WW 6676387
LLI Group # 1313421
Account # 10904

Project Name: 307233

Collected: 06/04/2012 13:15 by FT Chevron
 Submitted: 06/05/2012 10:00 L4310
 Reported: 06/15/2012 11:52 6001 Bollinger Canyon Rd.
 San Ramon CA 94583

23312

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B ug/1 ug/1					
10943	Benzene	71-43-2	15	0.5	1
10943	Ethylbenzene	100-41-4	12	0.5	1
10943	Toluene	108-88-3	2	0.5	1
10943	Xylene (Total)	1330-20-7	23	0.5	1
GC Volatiles SW-846 8015B ug/1 ug/1					
01728	TPH-GRO N. CA water C6-C12	n.a.	4,200	250	5
GC Petroleum SW-846 8015B ug/1 ug/1					
Hydrocarbons w/Si					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	510	50	1
The reverse surrogate, capric acid, is present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P121611AA	06/09/2012 17:31	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P121611AA	06/09/2012 17:31	Emily R Styer	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12159A20A	06/09/2012 09:56	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12159A20A	06/09/2012 09:56	Marie D John	5
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	121600001A	06/13/2012 18:16	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	121600001A	06/08/2012 14:00	Kelli M Barto	1

Sample Description: MW-12-W-120604 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-12

LLI Sample # WW 6676388
LLI Group # 1313421
Account # 10904

Project Name: 307233

Collected: 06/04/2012 13:15 by FT Chevron
 Submitted: 06/05/2012 10:00 L4310
 Reported: 06/15/2012 11:52 6001 Bollinger Canyon Rd.
 San Ramon CA 94583

3312Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons w/Si	SW-846 8015B	ug/l	ug/l	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	990	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	121600005A	06/11/2012 23:26	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	121600005A	06/08/2012 14:00	Kelli M Barto	1

Quality Control Summary

Client Name: Chevron
Reported: 06/15/12 at 11:52 AM

Group Number: 1313421

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: P121611AA	Sample number(s): 6676382-6676383, 6676385, 6676387							
Benzene	N.D.	0.5	ug/l	92	91	77-121	1	30
Ethylbenzene	N.D.	0.5	ug/l	95	96	79-120	1	30
Toluene	N.D.	0.5	ug/l	101	102	79-120	1	30
Xylene (Total)	N.D.	0.5	ug/l	96	95	77-120	1	30
Batch number: 12159A20A	Sample number(s): 6676382-6676383, 6676385, 6676387							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	91	90	75-135	1	30
Batch number: 121640035A	Sample number(s): 6676383							
Methane	N.D.	5.0	ug/l	95		80-120		
Batch number: 121600001A	Sample number(s): 6676383, 6676385, 6676387							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	69	81	50-118	17	20
Batch number: 121600005A	Sample number(s): 6676384, 6676386, 6676388							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	88	81	50-118	7	20
Batch number: 121581848002	Sample number(s): 6676383							
Calcium	N.D.	70.5	ug/l	95		90-110		
Batch number: 12161655601B	Sample number(s): 6676383							
Sulfate	N.D.	300.	ug/l	97		90-110		
Batch number: 12157834401A	Sample number(s): 6676383							
Ferrous Iron	N.D.	10.	ug/l	99		93-105		
Batch number: 12163023002A	Sample number(s): 6676383							
Dissolved Sulfide	N.D.	54.	ug/l	102		90-110		
Batch number: 12164002202B	Sample number(s): 6676383							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	99		90-110		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 121640035A	Sample number(s): 6676383 UNSPK: P675440								

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/15/12 at 11:52 AM

Group Number: 1313421

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Methane	-1666 (2)	-1999 (2)	35-157	12	20				
Batch number: 121581848002 Calcium	Sample number(s): 6676383 UNSPK: P677584 BKG: P677584 50 (2) 49 (2) 81-118 0 20 76,900 76,400 1 20								
Batch number: 12161655601B Sulfate	Sample number(s): 6676383 UNSPK: P675068 BKG: P675068 104 90-110 11,500 11,500 0 20								
Batch number: 12157834401A Ferrous Iron	Sample number(s): 6676383 UNSPK: 6676383 BKG: 6676383 103 99 81-112 2 6 27,100 28,000 3 (1) 5								
Batch number: 12163023002A Dissolved Sulfide	Sample number(s): 6676383 UNSPK: P679234 BKG: P679234 75 81 43-137 8 16 N.D. N.D. 0 (1) 5								
Batch number: 12164002202B Total Alkalinity	Sample number(s): 6676383 UNSPK: P673263 BKG: P674610 24* 25* 73-121 7* 5 205,000 205,000 0 5								
Phenolphthalein Alkalinity	N.D. N.D. 0 (1) 5								

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water
Batch number: P121611AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6676382	94	98	105	92
6676383	93	98	104	99
6676385	92	97	103	96
6676387	93	97	105	96
Blank	93	99	105	92
LCS	93	101	104	97
LCSD	93	102	105	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 12159A20A
Trifluorotoluene-F

6676382	86
6676383	103
6676385	117
6676387	127
Blank	84
LCS	108
LCSD	107

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Reported: 06/15/12 at 11:52 AM

Group Number: 1313421

Surrogate Quality Control

Limits: 63-135

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel
Batch number: 121600001A
Orthoterphenyl

6676383	43*
6676385	74
6676387	74
Blank	75
LCS	85
LCSD	94

Limits: 50-154

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel
Batch number: 121600005A
Orthoterphenyl

6676384	69
6676386	81
6676388	81
Blank	88
LCS	109
LCSD	97

Limits: 50-154

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 121640035A
Propene

6676383	83
Blank	94
LCS	96
MS	48
MSD	59

Limits: 42-131

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody



060412-01

For Lancaster Laboratories use only

Acct. #: 10904 Sample # 4676382-88 Group #: 020845

Please forward the lab results directly to the Lead Consultant and cc: G-R.

1313421

Facility #: <u>SS#307233-OML G-R#385876 Global ID#T0600196622</u> Site Address: <u>2259 FIRST STREET, LIVERMORE, CA</u> Chevron PM: <u>EF</u> Lead Consultant: <u>CRAHK Hoey</u> Consultant/Office: <u>G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Phone # <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>Frank Termini</u>				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested Preservation Codes H H H H BTEX 8260 8021 TPH 8015 MOD GRO TPH 8015 MOD DRO Silica Gel Cleanup DISSOLVED METHANE (DMS-175) FERMONS 3300 (SM20 3300 F & B) Total Lead Method Dissolved Lead Method TPH-DRO w/396 SULFAT 5 (EPA 300.0) (SM 20 4500 S 20) DISSOLVED SULFIDE TOTAL (AS CALCO37) (SM 20) ALKALINITY 3320 B CALCIUM (6010)										Preservative Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits									
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX	TPH 8015 MOD GRO	TPH 8015 MOD DRO	DISSOLVED METHANE (DMS-175)	FERMONS 3300 (SM20 3300 F & B)	Total Lead	Dissolved Lead	TPH-DRO w/396	SULFAT 5 (EPA 300.0) (SM 20 4500 S 20)	DISSOLVED SULFIDE	TOTAL (AS CALCO37) (SM 20)	ALKALINITY 3320 B	CALCIUM (6010)	Comments / Remarks		
QA	6-4-12					W			2	X	X													Please report DRO w/sgc using 10 grams of silica and also report 1 gram shake results	
MW-8	↓	1230	X						17	X	X	X	X	X											
MW-10	↓	1210	X						8	X	X	X	X	X											
MW-12	↓	1315	X						8	X	X	X	X	X											

Turnaround Time Requested (TAT) (please circle) (STD. TAT) 24 hour 72 hour 48 hour 5 day			Relinquished by: <u>[Signature]</u> Date: <u>6-4-12/505</u> Time: <u>10:00</u>		Received by: <u>[Signature]</u> Date: <u>6-4-12</u> Time: <u>1:00</u>	
Data Package Options (please circle if required) QC Summary Type I - Full EDF/EDD Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk			Relinquished by: <u>[Signature]</u> Date: <u>04 JUN 12</u> Time: <u>1630</u>		Received by: <u>FEDEX</u>	
			Relinquished by Commercial Carrier: UPS FedEx Other _____		Received by: <u>[Signature]</u> Date: <u>6-5-12</u> Time: <u>1:00</u>	
			Temperature Upon Receipt: <u>2.8</u> °C		Custody Seals Intact? Yes No	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>$ 25%	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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